BACKGROUND OF THE INVENTION

[0005] Gonadotropin releasing hormone (hereinafter called GnRH) participates in the hypothalamic–pituitary gonadal control of human reproduction. The involvement of GnRH has been demonstrated in several carcinomas and GnRH analogue treatment has been applied in breast, prostatic, pancreatic, endometrial and ovarian cancers (Kadar et al. Prostate 12:229-307, 1988). These analogues suppress tumor cell growth *in vitro* and *in vivo*. The existence of GnRH binding sites was revealed in the corresponding malignant cells and in well-established cell lines (Emons et al. J. Clin. Endocrinol. Metab. 77:1458-1464, 1993), though preliminary results suggest that the GnRH receptor involved may differ from the previously documented receptor (Kakar et al. Biochem. Biophys. Res. Comm. 189:289-295, 1992).

[0006] Although GnRH binding sites have been demonstrated in a number of solid tumors and various carcinoma cell lines derived mainly from hormone dependent tissues, their existence in colon or renal carcinoma has not been previously documented. The presence of specific GnRH binding sites in colon, breast, prostate, ovarian endometrium, renal and liver carcinomas, is shown here. Surprisingly, the specific GnRH binding sites are not limited to hormone-dependant tissues, as